

Claims

This listing of claims will replace all prior versions and listings of claims in the application. The claims have not been amended; however, some have been re-formatted, and the status of all claims has been updated.

Listing of Claims:

1. (Currently Amended) A stent comprising:
a main body defining a plurality of cells, the main body including opposite ends;
an end structure adapted to be flared relative to the main body, the end structure being located adjacent at least one of the ends of the main body; and
the end structure including predefined bend locations comprising areas of reduced ~~cross-section~~ radial wall thickness as compared to areas of adjacent locations for facilitating flaring of the end structure relative to the main body.
2. (Previously Presented) The stent of claim 1, wherein the end structure includes a plurality of cantilever members having base ends connected to the main body at the predefined bend locations.
3. (Previously Presented) The stent of claim 1, wherein each predefined bend location includes one or more notches.
4. (Cancelled)
5. (Previously Presented) The stent of claim 1, wherein the areas of reduced cross-section are in the range of 15-60 percent smaller than the areas of the adjacent locations.
6. (Previously Presented) The stent of claim 1, wherein the predefined bend locations include notches provided at interior and exterior surfaces of the stent.

7. (Previously Presented) The stent of claim 1, wherein the predefined bend locations include notches provided at exterior surfaces of the stent.
8. (Previously Presented) The stent of claim 1, wherein the predefined bend locations include notches provided at interior surfaces of the stent.
9. (Previously Presented) The stent of claim 2, wherein the cantilever members include enlargements in which x-ray visible markers are positioned.
10. (Previously Presented) The stent of claim 1, wherein the predefined bend locations include shoulders.
11. (Previously Presented) The stent of claim 1, wherein the end structure includes a plurality of end struts having base ends connected to the main body.
12. (Previously Presented) The stent of claim 11, further comprising linking members that extend between the end struts.
13. (Previously Presented) The stent of claim 12, wherein the linking members are configured to straighten as the end struts are flared.
14. (Previously Presented) A stent comprising:
 - a main body defining a plurality of cells, the main body having opposite ends;
 - a plurality of end struts adapted to be flared relative to the main body, the end struts being integrally connected with at least one of the ends of the main body; and
 - the end struts including regions of reduced radial wall thickness for facilitating flaring of the end struts relative to the main body.
15. (Previously Presented) The stent of claim 14, wherein the end struts are connected to the main body at connection locations, and wherein the regions of reduced radial wall thickness are located adjacent to the connection locations.

16. (Previously Presented) The stent of claim 14, wherein the regions of reduced radial wall thickness are provided by notches.

17. (Previously Presented) The stent of claim 14, wherein the regions of reduced radial wall thickness are defined by shoulders.

18. (Previously Presented) A stent comprising:

a main body including a plurality of support members defining a plurality of open cells, the support members extending about a circumference of the main body and each defining an undulating pattern having a plurality of peaks and valleys;

a plurality of end struts adapted to be flared relative to the main body, the end struts being connected to at least some of the peaks of the main body; and

the end struts defining notches for facilitating flaring of the end struts relative to the main body.

19. (Previously Presented) The stent of claim 18, wherein the main body includes an end support member having a plurality of peaks and valleys, and wherein the end struts are connected to every other peak of the end support member.

20. (Previously Presented) The stent of claim 18, wherein the main body includes an end support member having a plurality of peaks and valleys, and wherein the end struts are connected to every third peak of the end support member.

21. (Previously Presented) The stent of claim 18, wherein the main body includes an end support member having a plurality of peaks and valleys, and wherein the end struts are connected to every peak of the end support member.

22. (Previously Presented) The stent of claim 18, wherein each end strut includes two enlargements including radiopaque markers.

23. (Canceled)
24. (Previously Presented) A stent comprising:
a main body defining a plurality of cells, the main body having opposite ends;
a plurality of end struts adapted to be flared relative to the main body; and
the end struts having lengths, and the end struts being radially thinned along
their lengths relative to the main body for facilitating flaring of the end struts relative to
the main body.
25. (Previously Presented) The stent of claim 1, wherein the stent includes a central
longitudinal axis, and the areas of reduced cross-section are reduced in a radial
direction relative to the central longitudinal axis of the stent.
26. (Previously Presented) The stent of claim 14, wherein the stent includes a
central longitudinal axis, and the regions of reduced wall thickness are reduced in a
radial direction relative to the central longitudinal axis of the stent.
27. (Previously Presented) The stent of claim 18, wherein the stent includes a
central longitudinal axis, and the notches include areas of reduced cross-section that
are reduced in a radial direction relative to the central longitudinal axis of the stent.
28. (Currently Amended) A delivery system comprising:
a catheter for delivering a stent; and
a stent mounted on said catheter, said stent comprising:
(a) a main body defining a plurality of cells, the main body including opposite
ends;
(b) an end structure adapted to be flared relative to the main body,
(c) the end structure being located adjacent at least one of the ends of the
main body; and

- (d) the end structure including predefined bend locations comprising areas of reduced ~~cross-section~~ radial wall thickness as compared to areas of adjacent locations for facilitating flaring of the end structure relative to the main body.

29. (Previously Presented) The delivery system of claim 28, wherein the stent includes a central longitudinal axis, and the areas of reduced cross-section are reduced in a radial direction relative to the central longitudinal axis of the stent.

30. (Currently Amended) A method for implanting a stent at a junction between a first and a second vessel, the method comprising:

- (a) providing a stent having:
 - (1) a main body including opposite ends; and
 - (2) an end structure adjacent one of the opposite ends, the end structure adapted to be flared relative to the main body, the end structure including predefined bend locations comprising areas of reduced ~~cross-section~~ radial wall thickness as compared to areas of adjacent locations for facilitating flaring the end structure relative to the main body;
- (b) positioning the stent such that the main body is located within the first vessel and the end structure extends into the second vessel; and
- (c) radially expanding the main body into contact with an interior surface of the first vessel and causing the end structure to flare such that it is in contact with the interior surface of the second vessel.

31. (Previously Presented) The method of claim 30, wherein the stent includes a central longitudinal axis, and the area of reduced cross-section of the stent is reduced in a radial direction relative to the central longitudinal axis of the stent.